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GENESEE FARMER.

SATURDAY, MAY 27, 1837.

Brief Hints for June.

As early in this month as possible, ground should be got ready for Ruta Baga. Any soil will answer well if it is not wet, and is deep, mellow and rich. Too much manure can scarcely be applied, especially if it be fine and well rotted.

The most economical method, is to prepare the ground in the very best manner, and plant the seed in drills about 15 inches apart, so that they may be thinned to 8 or 10 inches in the drill. The manure may thus be spread broadcast, and the effect of none of it is lost by lying between remote rows. The cleaning is all done witha hoe, which is quite as economical *for the amount of the crop*, as where a cultivator is used.

The only advantage of ridging, is where the soil is not sufficiently deep or fertile, and requires to be accumulated in ridges for this purpose. Where this is the case, it is best to plough the land into ridges and furrows about two and a half feet apart, fill the furrows with manure, split the ridges with a plough and throw them upon the manure, thus forming new drills, on which the seed are planted. This is best adapted to heavy soils suffering from wetness.

The seed should be planted an inch deep if the soil is moist, but deeper if inclining to be dry. About one pound to the acre is in ordinary cases sufficient. If no drilling machine is at hand, drills may be made with an instrument resembling a large coarse rake with short teeth, each tooth for a drill; the seed may be rapidly and evenly dropped, by means of a tin cup fastened to the lower end of a rod, with a small hole in the bottom, holding the cup by the rod and walking with an even pace and shaking it constantly.

The average crop to the acre is about 500 or 600 bushels—900 and 1000 have frequently been obtained, and in one instance they produced at the rate of 2200 bushels to the acre.

Crops of Mangel Wurtzel planted last month, should be thinned when the plants are 2 or 3 inches high, leaving them from 6 inches to a foot in the drill, in fertile soil requiring more room than otherwise.

Too much pains cannot be taken to have root crops early cleared of weeds; a chief cause of failure is owing to an neglect of this care.

In all cases keep *ahead* of weeds. This is cheaper, and saves a part of the crop.

It is a good time now to clear grain fields of weeds which may injure the crop or render the seed foul.

Plastering corn soon after it is up is often beneficial, and in some instances has increased the crop 25 per cent.

Manure should be taken care of to prevent its wasting by fermentation and evaporating. To this end it should be piled in heaps, and covered a few inches with earth or a coating of lime. The quality of lime in retaining the exhalation of fermenting substances, was strikingly proved by covering the carcass of a cow 6 inches with earth containing about one third lime. No smell was perceived during the putrefaction, and the crop to which the lime was afterwards applied, was far more benefitted than the adjoining crop, where the same quantity of lime was applied. Slacked and old lime is quite as beneficial for manure, as fresh lime.

In the Garden, constant care must be taken to keep all crops clear of weeds, to thin out such plants as have come up to thick, and to supply deficiencies where there have been failures. It is not yet too late to plant corn, beets, carrots, kidney beans, and cucumbers for main crops. Some plants will be injured by grubs if vigilance is not exercised—they must be examined in the morning, and if found eaten off, the grub must be searched for, and destroyed. Broccoli, cabbage, cauliflower, and tomatoes may be transplanted. In dry weather, water such plants as need it, always doing it in the evening. Clear all grass and weeds from around fruit trees, and mellow the surface. Examine young cucumber plants, and pinch to death all the striped bugs that can be found, until the plants get beyond their reach The cotyledons or seed leaves are more necessary to be preserved than the other leaves, as the plant is sure to die if they are destroyed early. Sticking of peas may be dispensed with by substituting the following contrivance:—stretch on sticks at suitable distances along the rows, strings of bark or bass matting; the plants will cling to these and thus be held erect. This is more expeditious than the common ways.

Beet Sugar in France.

While the whole commercial world seems on the verge of convulsion and ruin, there is a pleasure in witnessing the steady but sure advance of agriculture in its various branches; affording as it does conclusive evidence that our institutions are sound at the root, and that a more healthy state of trade will inevitably follow the present derangement. The cultivation of the soil is the great source, not only of food, but of real wealth, and so long as there is proof that the foundation is becoming broader and deeper, we have little to fear for any temporary accidents that may happen to the superstructure.

If we would not be the slaves of foreign merchants and manufacturers—if we would not pay tribute to other nations, and virtually surrender our independence to them, we must adopt a different policy in some respects, and instead of buying more than we sell, we must sell more than we buy. The farmer who buys much and sells little, is in a fair way to end his career in the poor house, and on this point nations differ but little from individuals. We must make our own woollens, our silks, and our sugars, and not be beholden to others for them. We have the hands, the soil, and the capital for producing these, and we must set about the matter in earnest.

So long as cotton is the all-engrossing staple of the south, but little sugar will be made there, and were attention turned to it, it is doubtful whether enough to supply us would be produced. As it is, the north must take the matter into their own hands, and by making their own sugar, not only add materially to the profits of labor in the free states, but lessen the continual efflux of stocks and specie that go abroad to purchase these necessary articles. It is not a visionary dream that beets will make sugar, or that they will make it profitably; and that beets can be grown in this country to any desired extent, does not admit of a doubt.

France has shown us what may be done in this matter. The impulse given by Chaptal to this new item of agriculture, will be remembered with gratitude in France, long after every trace of the bloody wars which in the early part of his life convulsed Europe, and to furnish the means of making powderfor which his life was spared by the Marats and Dantons of the day, shall be obliterated and forgotten. The genius of Napoleon, and the skill of Chaptal, were here profitably exerted, and the making of sugar from beets, has become one of the most productive kinds of business in that kingdom. A report has been drawn up in France, by order of the Minister of Finance, for the purpose of showing the prosperous condition of the sugar manufacture of that country.—By this document it appears that sugar from beet root is made in 751 communes; that there are 542 manufactories now at work, and 39 building, making a total of 581. The quantity of beet manufactured into sugar in 1835 was 668,986,762 killogrammes, and in 1836 it was 1,012,770,589 killogrammes. The value of sugar produced from this article in 1835 was 30,349,340 francs, and in 1836 it was 48,968,865 francs, being a difference in favor of the produce of 1836, as compared with the preceding year, of 18,619,475f.

Enough has been done to show that sugar can be made in private families with success, but the best way unquestionably is to conduct the business by association. In this way the spirit and perseverance of New England has been enlisted in the enterprise, and we trust the result will show with the most beneficial results. New York may at present prefer other branches of agriculture, such as raising wool or grain, but her farmers should not be the last to embark in any business that promises an ample remuneration with but little wear of the soil, and which does not require the cultivation of any considerable number of acres to furnish an adequate employment and profit. New York the present year will save a million of dollars by her maple sugar; in a very few years she might save to her citizens all she now sends abroad for the purchase of this indispensable article. Once independent of the world for her silks, and her sugars, New York might indeed claim with justice the proud title of the Empire State.

Planting Potatoes.

The various opinions which prevail on the subject of planting potatoes so far as to ensure the greatest crop of this valuable root, would lead us to suppose that there was much room for experiment in the matter, and that in this way much important information might be obtained. The opinion of farmers seems to differ on several points; such as, whether it is best to plant potatoes whole or cut; large or small; in hills or in drills; to earth the hill or leave them ground level; and whether potatoes perfectly ripe are better than those not entirely ripe, for planting. All these, if we except the last, which would seem to be settled by the bare statement of the query, would appear to be fair subjects of experiment, and which it is important should be fairly settled as they have a direct bearing on his interests. The proper quantity of seed to be used on an acre is a thing by no means settled; the quantity actually used varying from ten to fifteen bushels per acre, to thirty or thirty-five. There are few things cultivated by the farmer on which experiments can be made more readily or decisively than on potatoes; and we hope many in planting their grounds the present year, will adopt such measures as shall throw light on some or all of the above points of difference. Costly experiments may be left to government farms or amateur farmers.

Long and Short Scions.

Which are best, long or short scions? We have always supposed that scions, having two or three buds upon them were sufficiently long for the purpose of engrafting. We do not know now but they are equally as good as those which are a foot in length. We have however seen and watched the progress of some that were uncommonly long, set two or three year ago which have done uncommonly well, while some short ones, set the same season have not done so well. It is possible however that the difference may be owing to some other cause. It is well however to watch and observe the operation of nature as she carries on her silent but interesting operations around us, and endeavor to treasure up as many facts as possible, and draw such conclusions as facts will warrant to guide us in future operations. We hope those who may become engaged in grafting will experiment a little and note the result. By the way we are inclined to think that the mode of engrafting by cement is not so sure or safe a method us the old mode of using clay composition. We may be mis-

taken in this, but we are induced to draw this conclusion from observation. The cement does not so thoroughly protect the scion from the extremes of heat and cold as does the composition, and this may be one reason why it has not succeeded so well in this region. Many, however, still prefer it, and think it is equally as good as the other, and much more expeditiously applied.—*Maine Farmer.*

Breeds of Sheep.

The breeds of sheep in the United States may be comprised under the three following heads, viz:

1. *Short and fine wooled*, which embrace the Merino family, including the Saxons, which are reared principally for their fleece, a necessary and exclusive material in all our fine cloths. The average weight of fleece may be stated at 2½ lbs. and the length of the staple 2½ inches.

2. *Middle wooled.*—This class may be considered as embracing our common sheep, and the South Downs of Great Britain. These are raised both for fleece and carcass, the quality of the mutton being generally considered better than that of either the short or long wooled kinds, and the fleece heavier, though coarser, than that of the former. The average length of the wool is stated at 3½ inches, and weight of fleece at 3½ and 4 lbs. The fleece of this class is employed in the fabrication of common and coarse cloths, flannels, &c. Most of the flocks in Britain come under this denomination,—the wool used for their fine cloths being almost exclusively the product of Spain and Germany.

3. *Long wooled*, which embrace the Leicester, Cotswold and Lincoln breeds. These afford the material for worsted goods, hosiery, &c. and although these sheep give a heavy fleece, often reaching to nine and twelve pounds, they are principally reared for the sake of their carcass—for their great weight and early maturity for the butcher.

As this latter class are of but recent introduction, and as their fleece is likely to come in demand as manufactories of worsted goods are multiplied among us, a few remarks in relation to each of the long wooled kinds above named, may not be uninteresting.

The *New Leicester* breed are an improvement, made by the celebrated Bakewell, after long and preserving efforts, and perpetuated by his disciples, by breeding only from select individuals. "Mr. Bakewell perceived, that smaller animals increased in weight more rapidly than those of very large size; and that they consumed so much less food, that the same quantity of herbage applied to feeding a larger number of small sheep would produce more meat, than when applied to feeding a smaller number of large sheep which alone it would support. Acting upon these observations he selected from the different flocks in his neighborhood, without regard to size, the sheep which appeared to him to have the greatest propensity to fatten, and whose shape possessed the peculiarities which he considered would produce the largest proportion of valuable meat, and the smallest quantity of bone and offal. In doing this, it is probable he was led to prefer the smaller sheep, still more than he had been by the consideration above stated, because it is found that perfection of shape more frequently accompanies a moderate sized animal than a very large one." This quotation furnishes a valuable hint to American breeders, who are too prone to graduate value in proportion to size. Mr. Bakewell studied to improve the value of the carcass, deeming the fleece a secondary consideration. His improvements became so manifest and popular, that he was able to let his rams at two and three hundred guineas a season, and in one instance he let a single sheep for a thousand guineas the season. In 1793, Mr. Paget, an associate of Bakewell, sold at auction, a flock of 130 new Leicester ewes for £3,200, (= to $14,108,) averaging £25 16s. 11d. each, or about $108.

"No other sort of sheep, (says the Farmers' Series, from which we draw the preceding facts,) possesses so great a propensity to fatten—no other sort of sheep is fit for the butcher at so early an age—and although they are not calculated for the poorest soils, no other sort of sheep, in soils of a moderate or superior quality, is so profitable to the breeder." The weight of these sheep, at a year and a half old, is stated at from 24 to 36 lbs. per quarter. The staple of the wool may average seven twelve inches,—the weight of the fleece is seven to pounds, and sometimes more.

The late Christopher Dunn, of this city, was among the first to introduce among us the New Leicester or Bakewell sheep, and they yet maintain their purity and value upon the farm of his son. Numerous importations have been since made, and the New Leicesters are now found in almost every section of our country. Their mutton is exhibited every spring in our market, and surpasses all others for fatness.

The *Cotswold* breed has recently been sensibly improved by mixing with the new Leicester—the carcass is less, but better formed, and the weight of fleece is somewhat diminished. The quarters of the improved Cotswold weigh from 20 to 40 pounds, and the fleece 7 to 8 pounds. We have not heard of but few of these sheep reaching our country.

The *Lincolnshire*, like the Cotswold, have undergone recent improvements by a cross with the new Leicester. The sheep are particularly adapted to fenny or marshy lands, where they attain a heavier carcass and fleece than they do on uplands. Their average fleece is 8 or 9 lbs. and the staple is from 9 to 12 inches in length. Two of these killed at Lincoln market in 1827, gave fleeces that weighed 12 lbs. each; each of the fore quanters weighed 73 pounds, and the hind quarters 57½ pounds. An importation of Lincolns was noticed in a late Cultivator, by Mr. Clift, of Carmel, Putnam county.

Besides the sorts we have noticed, there are various crosses among us, of the Saxon, Merino and Leicester with our common flocks.

We think, that however the preference may be given, near our large market towns, to mutton sheep, the fleece is likely to become the great object with the sheep farmer in the remote inland districts, because this marketable product will better bear the expense of long transportation than the carcass, and is likely to command a more regular price. The relative value of the different kinds must be a matter of calculation with the farmer. The weight of fleece ordinarily diminishes as it improves in fineness, while the latter is the general criterion of value.

A microscope has recently been constructed by Powell, of London, of such extraordinary power as to show the serratures in the fibres of wool, which are found to increase in number much in the proportion to fineness. The writer on sheep husbandry, in the Farmers' Series of Useful Knowledge, thus describes the appearance of wool under this new microscopic power.

"The fibre thus looked at assumed a flattened riband-like form. It was of a pearly grey colour, darker towards the centre and with faint lines across it. The edges were evidently hooked, or more properly serrated—they resembled the teeth of a fine saw. These were somewhat irregular in the different parts of the field of view, both as to size and number. The area of the field was now ascertained; it was one-fortieth of an inch in diameter. By means of the micrometer we divided this into four, and we then counted the number of serrations in each division. Three of us counted all four divisions. The number was set down privately, and it was found that we had all estimated it at fifteen in each division, making 2,400 serratures in the space of an inch, all of which projected in the same direction, viz. from the root to the point. Then we endeavored to ascertain its actual diameter, and proved it to be 1,750 of an inch." The fibre was from a Merino fleece.

"We next endeavored to explore the cause of this serrated appearance, and the nature of the irregularities on the surface, which might possibly account for these tooth-like projections; we therefore took another fibre, and mounted it as an opaque object. It presented a beautiful glittering column, with lines of division across it, in number and distance seemingly corresponding with the serrations. These examinations afforded a satisfactory solution of the felting principle. The fibres can move readily in a direction from root to point, the projections of the cups [or serratures] offering little or no impediment, but when they have been once involved in a mass, and a mass that has been pressed powerfully together, as in some part of the manufactory of all felting wool, the retraction of the fibre must be difficult, and in most cases impossible."

With the above instrument, an examination was instituted, of the relative fineness and felting properties of the wool of different kinds of sheep, the felting properties being indicated by the number of its serratures. The following are some of the results:

	Fibres to an inch.	Serratures to do.
Saxon,	840	2,720
Merino pick-lock,	750	2,560
Common Merino,	750	2,400
South Down,	660	2,080
Leicester,	500	1,860
Lincoln,	480	1,280
Wool of the rabbit,	1,000	2,880
do. of the seal,	1,250	480

There can be no doubt, continues our author, that wool consists of a central stem or stock, probably hollow, or at least porous, and possessing a semi-transparency not found in the fibre of hair. From this central stalk there springs, at different distances, in different breeds of sheep, a circlet of leave-shaped projections, resembling leaves, or scales, which give to the wool the power of felting, and regulate the degree in which that power is possessed.—*Cultivator.*

More State Policy.

It will be recollected that very early in the silk enterprise the legislature of Massachusetts offered a small bounty for the production of silk, and subsequently increased it to $2, on every pound of silk growed, reeled and throwed in the commonwealth, for the term of seven years. It will also be remembered that we considered this liberal legislation "one of those master-pieces of State policy, for which her legislators have been long distinguished," and we have since been confirmed in our opinion of its expediency, by the favorable influence it has exerted upon the business in this State. The business of silk growing and manufacturing is progressing with a spirit and rapidity unparalled in any other State; and promises to become, at no very distant day, one of its principal staples.

Since the period alluded to another new branch of rural economy has presented itself—the extraction of sugar from the beet. A few intelligent and enterprising gentlemen from Northampton having investigated the subject and becoming satisfied of its practicability and profit are making arrangements to prosecute the business on a large scale. No sooner did this fact come to the knowledge of the legislature, accompanied by proof that the cultivation of the beet, and its manufacture into sugar is a great public object, than it came forward with its accustomed wisdom and liberality and extended to those who may be disposed to engage in it, the hand of encouragement. We understand that a bill giving a bounty of THREE CENTS a pound on beet sugar manufactured in the State, within five years, has passed both houses and become a general law. This is another instance of State policy equally deserving of commendation and imitation.

With this bounty the State of Massachusetts furnishes the sugar planter with facilities which cannot be found in any other known part of the world. It is said by the best informed, that an acre of land in beet, will yield as much sugar, and of as good quality, as an acre in cane in Cuba, and that the expense of a crop is less in the former than in the latter place. If this be so, it follows that the planter in Cuba cannot compete with the planter in Massachusetts in the production of sugar. The common Havana sugar which is quoted at from 6¼ to 7¼ averages about 7 cents. If from this we deduct 2½ cents duty, and 1½ cents for freight, insurance, importer's profit, &c., it will leave the Cuba planter but 3 cents, which is probably more than he ordinarily realizes. But admitting this to be the fact, it will be seen that the sugar grower in Massachusetts receives as much in bounty, as the Cuba planter does for his sugar, besides the value of his sugar in this country, which is at least 100 per cent more than it is in Cuba. With this balance of profit against them, the sugar planters in the West Indies cannot compete with those in Massachusetts, notwithstanding all the advantage they may derive from slave labor.

But what effect will this bounty have upon the agricultural interest in Massachusetts? Precisely the same as the bounty on silk—an advance in the value of real estate, and an increase of population. Every acre of land devoted to the production of sugar, or silk, will diminish the number appropriated to other crops, and enhance their value in the same

ratio; and every additional sugar, or silk grower they receive from other states, will not only give them an industrious and virtuous citizen,but another producer of the necessaries and luxuries of life. But, it may also be asked, what effect it will have upon other States where a contrary policy is pursued—where the hackneyed doctrine "that bounties and premiums on one article of production at the expense of other articles is unwise," is adopted and rigidly enforced? This question may be answered without the faculty of prescience. Massachusetts will increase in wealth and population at the expense of her more parsimonious sister States.—*Silk Culturist.*

Report on Silk.

The Report of the Committee on Silk, in the House of representatives at Washington, through their Chairman, Mr. Adams, is before us. It embodies a vast deal of statistical matter bearing upon the progress of the business in this country.—The Committee, so far as their investigations have been prosecuted, express themselves highly gratified with the fitness of this country for the growth and manufacture of silk, and the progress it has already made, in the establishment of incipient institutions. In Maine, the Legislature offers a bounty of five cents on every pound of Cocoons, and fifty cents on every pound of reeled silk.—The subject is enlisting some attention there. In New Hampshire, one Company is established and many individuals are entering into the business, but no legislative aid has yet been granted. Vermont, the legislature gives a bounty of ten cents on every pound of Cocoons raised in the state, and the business of mulberry trees and silkworms is exciting much attention in many towns. Massachusetts leads in the business, and her legislature offers $1,00 for every ten pounds of Cocoons, fifty cents for every pound of raw silk, and $1,00 per pound for every pound of reeled and twisted. There are various incorporated companies in Massachusetts, besides individuals in every section of the state, directly engaged in the business. The Northampton Company has a capital of $150,000, with about three hundred acres of land, various buildings, with machinery in operation, and over 100,000 Chinese and White Mulberry trees. The New England Silk Company at Dedham, has a capital of $100,000 and twenty or thirty acres of Mulberry trees. The Massachusetts Silk Company at Framingham, has a capital of $150,000 and one hundred and sixty acres of land, with nearly one hundred thousand mulberry trees. There are also the Boston, Nantucket, Roxbury and Newbury port incorporated Silk Companies all of which are preparing to grow and manufacture silk, or are already in successful operation. The business is also prosecuted with singular success by farmers, who make it a part of their household operations, in almost evey section of the state.—In Rhode Island, one incorporated Company exists with a capital of $100,000 at Providence, and the business is enlisting the interest of people in other sections of the state. Connecticut, where silk has long been grown on a small scale, the legislative encouragement is ample, paying $1,00 for every one hundred Italian or Chinese Mulberry trees five years old, and 50 cents for every pound of reeled silk. There are two incorporated companies, one with a capital of $20,000, at Mansfield, and the other with a capital of $30,000 at Hartford. The business is extending into different sections of the state, and promises to be a source of future opulence to its citizens. These facts in relation to the business in New England, we gather from the Report, and another week shall show its progress and extent through the middle and southern states. We are amazed at the interest the subject has already excited. Thus far, New England leads, and Massachusetts goes ahead of all her sister states in the silk business.—*Northampton Courier.*

From the Germantown Telegraph:

Apple and Peach Trees, &c.

Mr. Editor—In reading the late numbers of your valuable paper, I have observed that a portion of it is appropriated for agricultural information. The improvements that are constantly being made in farming operations, the many valuable implements, machines and useful plants, that are from time to time introduced amongst us, deserves to be noticed in such a paper as yours, having its circulation in an agricultural community. The advantages, to be derived from such a means of concentrating information, are manifest. Being myself a practical farmer, and finding it useful to make experiments, I will with your leave, take advantage of your invitation, and communicate occasionally such hints as I may think not to be generally known, and may be calculated to be useful.

In a late number I observed the complaints of a correspondent on rearing of Apple Trees, and the difficulty of guarding them against the attacks of a worm that eats out the heart of the tree. As I planted a young orchard about seven years ago, I have experienced all the embarrassments and mortification of your correspondent, and of about seven acres of ground planted in the usual way, there are not now standing more than twenty trees of those set out. I was industrious during September, October and November of each year, with the knife and wire. I had the earth removed from around the stem in the fall, and then had them some seasons limed and whitewashed, and others abundantly manured; and indeed did all my ingenuity, as well as my neighbors suggested, to preserve them; but in spite of all my exertions my trees died.

At length my patience being exhausted, and determined to abandon what remained of my orchard to its fate, if my only remaining experiment should fail, I had recourse to anthracite coal ashes, which I deposited in the spring upon the surface of the ground, around the stems of some of the trees. During the following summer, I observed that these appeared remarkably thrifty. They had a smooth, healthy bark,and made much wood. In the fall, the trees were carefully examined. Those about which there was no ashes, exhibited their usual appearance had an accustomed supply of worms, and had not grown much. On the contrary, there was not one of those around which the ashes had been placed, that had a worm at the root. I found several worms however at the distance of about 4 feet from the ground, which were easily detected and removed. Since that time (3 years ago,) I have found my trees to be steadily improving, and the like results have uniformly been produced from the use of ashes. Some of the trees had a heavy load of fruit last year, and now look remarkably promising.

I have also used anthracite coal ashes upon my peach trees with a like result; and my trees last summer, although growing in a heavy clay soil, bore for the first time, an abundant load of fruit; and their appearance now, would not be discreditable to the best peach orchards of New Jersey. I must do the peach tree worm the justice to say, however, that in a few instances, I found him at his post, but there were many trees,a very large majority, where he was not to be seen. Many peach trees are in my garden, and in the cultivation of it the ashes may have been mixed with the earth thereabouts, so as to destroy its repulsive property but whether it contains this property or not, it will be found a most valuable manure for trees.

From the observations I have made, I am satisfied, that the absence of worms from so many trees, may be fairly attributed to the use of the coal ashes, and I therefore confidently recommend it to those who feel on interest in the cultivation of these delicious fruits. PENN.

Importation of Arabian Horses.

To the politeness of J. S. Skinner, Esq. we are indebted for the following letter and documents from Commodore Elliott of the U. S. Navy, announcing the acquisition by him of an Arabian stallion and two brood mares, of undoubted blood. It is understood that the Commodore intends sending them home this spring, and therefore they may be expected very soon. They will doubtless be a valuable acquisition to the country. Who knows but that some future Godolphin, or Darley Arabian, with their long line of illustrious descendants may trace its origin to this importation? Who shall say that the Elliott Arabian may not hand the gallant Commodore's name as far down the stream of time as any of his naval achievements?

Port Mahon, Oct. 29, 1836.
U. S. Ship Constitution.

Sir:—I have this summer obtained a full blooded Arabian stud,of an iron gray colour,about 4 years old, and two full blooded mares, one iron gray, and one a bay, both with foal, and will drop them in the spring. The gray is very like Mary Randolph. I have the certificates in Arabic and Italian, and so strong and sure that there can be no doubt about their blood. They are from Jericho, near the Dead Sea. While in Alexandria, in Egypt, every person who saw them wondered how I could get such animals out of the country, as there are orders there, that have been laying for a twelvemonth, for animals of their character and description, but none are to be had. I had the assistance of our newly appointed vice-consul at Jaffa, who is a very rich Armenian, and a man of high standing, through whose agency, I finally succeeded in getting them, though they cost me a good deal of money. I have his seal of office attached, in addition to the certificate, that there may be no doubt whatever.

I herewith enclose you copies of the certificates, which I had translated that you may know more of them.

As ever truly, your most obedient servant,
J. S. Skinner, Esq. J. D. Elliott.

Beet.

VARIETIES.

Early Blood Turnip-rooted.	Early Scarcity.
Early Long Blood.	Mangel Wurtzel.
Extra Dark Blood.	French Sugar, or Amber.
Yellow Turnep-rooted.	Sir John Sinclair's.

Beets, in their several varieties, are biennial, and the best blood-colored are much cultivated for the sake of their roots, which are excellent when cooked, and very suitable for pickling after being boiled tender; they also, when sliced, make a beautiful garnish for the dish, and the young plants are an excellent substitute for Spinach.

The Mangel Wurtzel, Scarcity, and Yellow Turnip Beets, are cultivated for cattle. Domestic animals eat the leaves and roots with great avidity. They are excellent food for swine, and also for milch cows; and possess the quality of making them give a large quantity of the best flavored milk.

A small bed of the earliest and most esteemed kinds of Beets, may be planted in good rich early ground towards the end of March, or in the first week of April, which being well attended to, will produce good roots in June.

Draw Drills a foot apart, and from one to two inches deep; drop the seed along the drills about two inches from each other, and cover them with the earth. When the plants are up strong, thin them to the distance of six or eight inches from each other in the rows. The ground should be afterwards hoed deep round the plants, and kept free from weeds.

If the planting of Beet seed, for general crops, be delayed until May or June, the roots will be much larger and better than those from the earlier planting, which, from being frequently stunted by the various changes of weather, become tough, stringy, and of unhandsome shape. In case of failing crops, Beet seed planted the first week in July, will sometimes produce large handsome roots for winter use.

The most suitable ground for Beets, is that which has been well manured for previous crops, and will require no fresh manure, provided it be well pulverized.

It is always best to thin Beets while young. If the tops are used as a vegetable, they should not be left too long for this purpose, or they will greatly injure the roots of those that are to stand. Beds that are to stand through the summer, should be kept clean by repeated hoeings; and the roots intended for winter use should be taken up in October, or early in November, and stowed away as directed in the calendar for those months.

Allowing Beet seed to be planted on the gardening plan, it will require at the rate of ten pounds for an acre of land, which is two pounds and a half for a rood, and one ounce for every perch pole or rod. If cultivated on the field system, one half the quantity of seed will be sufficient, or even less, if sown regular. If it be an object with the gardener to save his seed, he may plant two or three seeds in each spot where a plant is required, and thin them as before directed.

It may be necessary to add, that one pound of beet seed will measure about two quarts, and as each capsule contains four or five small seeds, thinning out the surplus plants is indispensible to the production of good roots.—*Bridgeman's Gard.Ass't.*

COMMUNICATIONS.

Electro-Magnetism.

The discovery of the Electro-Magnetic power, and its application to the moving of machinery, we consider one of the most important events of the age; and decidedly the greatest triumph that science has yet achieved for the arts. The experiments of Oersted gave birth to the science of Electro-Magnetism, and combined with the battery of Volta, has opened a career of improvement as new and brilliant, as it is likely to prove useful. The identity of the electric and magnetic fluids, had long been suspected, but the first demonstrative proof was furnished by Professor Henry, of Albany, who obtained electric sparks from his powerfully armed magnet; and thus showed the world that an agent of unlimited strength, was combined with a continually active one, or rather that they were one and the same; and in all probability capable of being rendered subservient to the will and use of man. The pendulum of De Luc's dry galvanic pile, and the perpetual motion of Singer's time-piece, were the first efforts to apply this power to machinery; but these efforts were not of a nature to be considered as decisive, and the idea of employing the new agent as a substitute for water or steam had apparently been abandoned. The attention of scientific men was however occasionally called to the subject, and Dr. Lardner in his work on the steam engine, indulged in some prophetic speculations as to the substitution of the electro-magnetic for steam, and nearly all other moving powers.

These anticipations appear in a fair way to be realized: and as an American was the first to disarm lightning of its terrors by the pointed steel rod; so it has been reserved for an American to chain this ethereal and all-powerful as well as all-pervading agent, and render it subservient to the will and the wishes of man—to compel it to labor for him in whirling the rapid car, or propelling the majestic ship. To Mr. Davenport, an obscure, but self-taught and enterprising son of genius,—blacksmith we believe by trade, and resident at Saratoga, has the honor been reserved of constructing a machine which promises the greatest aud most beneficial results. Silently and almost unaided, he for several years has been arranging and perfecting his plan and his machinery, and he now is in a fair way to find his most sanguine anticipations realized. More than two years since, he succeeded in giving a constant motion to a wheel, but it required an almost infinite number of experiments, and the most persevering assiduity, to overcome the obstacles that continually presented themselves, and bring the machine into a state capable of exerting the power which it is now found to possess. A wheel of eight or ten inches in diameter, making a thousand revolutions in a minute, has raised a weight of more than eighty pounds; and as there is no limit to the source whence the action is derived, and time instead of weakening, if any thing, gives more intensity to the magnetic agency, at least until the maximum of circulation is reached, so there can be no limit to the power which may thus be created and exerted.—Like the great improvement in the steam engine, (Avery's rotary engine,) the power is exerted where it can produce the most effect, and a force apparently feeble in itself, makes up in velocity and accumulation, what is wanting in absolute power. Unlike all steam engines, however, the electric magnetic engine can never be dangerous, as the power is thrown off as fast as it is generated; it requires no supply of fuel, for that is already provided in the vast laboratory of nature, and use does not in the least lessen the quantity; of course it can be used where steam is impossible or inadmissible, and the time cannot be distant when ships moved by this agent will traverse the ocean with the same certainty and rapidity with which steam now propels them on our rivers.

It is not, however, to the agency of electro-magnetism as a mechanical power, that the philosopher looks with most interest, though here he is lost in astonishment at the boundless nature of the field opened to science and the arts. It is when he sees this subtle agent in the hands of the man of science, rivalling or exceeding some of the most secret and mysterious operations of nature, and opening as it were a new world to his inspection; when he sees things that once would have been deemed little short of miraculous, stand revealed and plain through the agency of this new power; when he looks at the discoveries which have thus been made in a few years, and their rapid accumulation and development, he hardly knows where to set bounds to its activity, or limits to its all pervading influence. What electricity has already performed so much exceeds what sober belief and rational philosophy could once have anticipated, so much of the veil that shrouds the mysteries of the inner courts of the temple of nature, have been disclosed by it, that man scarcely dares to doubt the possibility of any thing that may be affirmed or suggested respecting its agency.

Conceiving that an agent so active and pervading in its influences, must act an important part in nature; and that to it most of the phenomena of chrystalization in minerals, and circulation in plants might be owing; the attention of Davy, Hare, and Silliman was early directed to these points, but owing to imperfection in the modes of performing the experiments, the results were not so decisive as might have been expected. Still they were such as to stimulate further enquiries, and greater and more important results were gradually obtained. Each successive step was a triumph, as giving more correct views of voltaic agency, and showing its immense range. It was found that by exposing a substance in a fluid state to long continued magnetic or voltaic action, the process of chrystalization might be hastesed, and from the analogy between the chrystalization of minerals and the growth of plants, it was supposed that a similar action on them would lead to similar results. The experimenters here found they were correct, though the rapidity with which plants were developed from the seed when exposed to the action of this energetic agent, astonished every one. By soaking the seeds in some solution calculated to facilitate the action of the electric agency, and then exposing them to the current of a battery, it was found that plants could be grown in a few hours that would have required as many days; and a scientific gardener in London won a heavy wager from a cook, that he would grow a sallad from the seed, while the other was roasting a quarter of mutton.

The success which attended these experiments on chrystalization and the circulation of plants, gave a wider range to the investigation of chemists and philosophers, and induced them to try the effect of the fluid on animal life, in about the only way in which it could be approached, the formation of the chick in the shell. Here again its potency surprised them. It was found that eggs kept at a proper temperature and placed so as to be constantly charged with the electric agency, hatched in about twenty hours, or but a little more than one hour for a day in the usual method. These results seem to demonstrate beyond contradiction that the formation of minerals in the earth, and of course the general direction of the veins in all chrystalized substances—the circulation of the sap and consequent growth of all plants whatever—and the development and duration of animal life, are, under God, depending on one and the same cause, the subtle, invisible, and, so far as we have the means of knowing, all pervading electro-magnetic influence.

The last discoveries, however, of the effects of a long continued voltaic action, have exceeded all former ones, and filled the most sanguine in the career of investigation with surprise. Under certain circumstances it appears to possess the power of the formation of living animals, certainly their revivification from the original and primitive atom. This great discovery was made a few months since by Mr. Crosse, a gentleman in Somersetshire, who has distinguished himself in this investigation, and who has directed much time and talent to the formation of chrystals of various minerals, showing their nature and the process of their creation in their native fluids. The extraordinary result of Mr. Crosse's experiments are thus detailed in an English Journal. "A month or two since he prepared a silicious fluid for the purpose of chrystalization. He heated flint to a white heat, and then plunged it into water to pulverize it. The silex thus reduced was saturated to excess with muriatic acid. The mixture was placed in a jar, a piece of flannel was suspended in it, one end of which extended over, and by capillary attraction, the liquor was slowly filtered, fell into a funnel, and dropped on a piece of iron stone previously heated to a white heat, upon which were laid the two wires connected with either pole of the battery. Mr. Crosse made his daily observations on the wires to discover the process of chrystalization. On the 14th day he saw some small white specks on the stone. Four days afterwards they had elongated and assumed an oval form; and he concluded they were incipient chrystals. Great was his surprise on the 22d day to find eight legs projecting from each of these little white bodies, but still he could not believe they were living beings. On the 25th day all doubt was removed; they fed, they were perfect insects of which eighteen or twenty appeared. It is in form something like a mite; has eight legs, four bristles at the tail, and the edges of the body are bristly. Its motions are visible to the naked eye, and it appears to feed on the silicious particles in the fluid. Although the nature of the experiment seemed to preclude the idea that any germs of life could have been present, and as the liquid was one in which no known animal can exist a moment; yet to prevent the possibility of mistake, Mr. Crosse varied his experiments with the greatest care; still the voltaic action produced the same results, and living animals were uniformly present."

As was to be expected, the announcement of such a discovery has made a great sensation among the learned of Great Britain. Mr. Crosse simply stated the facts, leaving the explanation to others. It was deemed incredible at first, but at a late meeting of the Royal Institution at London, the celebrated chemist Faraday, delivered a lecture, in which he alluded to the discoveries of Mr. Crosse, and said that though doubted by many, he knew them to be true, as he himself, by a continuous voltaic stream from silica of potass had produced living animals; and he exhibited some of these insects obtained from the solid stone. The fact therefore seems to be placed beyond a doubt, the only difficulty is in the solution. Two only present themselves; one of these is, that they are absolute instances of spontaneous generation: the other is founded on the fact that the celebrated German naturalist Berzelius discovered that silica and some other rocks, were chiefly composed of the remains of insects. May not the germs of some of them, released from their prison house, and placed in a position favorable to a development of vitality, have sprung to life after a sleep perhaps of thousands of ages? Time and future investigations only can determine. W. G.

Otisco, April 25, 1837.

Loss of Mulberry Trees.

Mr. Tucker—Last spring I procured a pound of Mulberry seed (white Italian,) and sowed it between the middle of May and first of June. The seed came up well—that is, it produced seventy or eighty thousand trees, and when the September frosts came, they were from two to eighteen inches high. The first frost cut them severely—some of the smallest were killed to the ground. The latter part of October I commenced taking them up to secure them from the winter. I took up about thirty thousand, and buried them in trenches so that the trees lay sloping about forty-five degrees, and covered them so that the tops of the longest trees were just out of the ground. The remaining trees were left in the seed beds. At the disappearance of the snow in March, the trees appeared to have withstood the winter well, but the thaws and frosts in March raised more than three quarters of them out of the ground, or so much so that they were killed; and on examining the buried trees the first of May, (the time that I was ready to put them into the nursery,) I found that they were nearly all dead—not one thousand alive. On more than one half of them the roots were good, but the tops were killed below the lowest bud. Some of them were alive in the tops and the root dead. The soil of my seed beds was sandy and gravelly loam. The ground was nearly level where the trees were buried, of a rich sandy loam. I had trees of two years growth standing near the buried trees, that have not been injured the past winter. I should be pleased to learn through the Farmer how the young Mulberry has withstood the past winter generally in this section of

country. I have fed a few thousand silkworms the last two years, and shall continue to increase the number as fast as my trees increase.

Wheatland, May 22, 1837. RAWSON HARMON, JR.

Culture of the Peach.

WILMINGTON, April 5th, 1837.

Gentlemen—I have cut the enclosed article from the Hamilton Intelligencer, and believing it highly important to the public, request its publication in your paper. I believe it is from the pen of Judge Milikin, of Butler county, Ohio.

He is a practicing physician of age and much experience with regard to the subject on which he writes. I do not consider myself skilled in the science of horticulture, but from observation, have long known the existence of the facts, for which the writer gives us philosophical reasons in their support. B. HINKSON.

Peach Trees.—I frequently hear complaints through the country, that it has become almost impossible to cultivate the Peach tree. It is likewise remarked, that the fruit does not possess the same rich flavor that it did some years ago. I believe it to be a fact from my own observation, that we have no longer the pleasure of eating that delicious fruit, with all the fine flavor that it possessed in former times. There must be some natural causes for this failure. The climate has not changed. The sun has not ceased to shine. Rains and snows descend as formerly. Why then does the Peach tree not live, flourish and fructuate?

I have frequently heard it remarked, that the Peach tree would only do well in newly settled countries, where there was nothing but it and uncultivated fruits. The observation is correct in part, that it only does well in newly cultivated lands; but why the orchardist and farmer have not examined, or have not chemically inquired into the cause of the death of the tree and failure of its fruit, I know not. The only subject to investigate in this inquiry, is the situation the soil is in when the peach tree is thrifty and bears well, and the mode and manner of keeping the soil with the same constituent properties. We see that it is necessary that the sun should shine on the tree and fruit in order to give that flavor which we so much admire. If the tree is in the shade, we find that there is an excess of acid in the Peach which renders it unpalatable—abounding with a watery fluid. It therefore becomes necessary, that *at least* a part of the day's sun should shine on the *tree* and its fruits, to concentrate the fluids. Further, we find that there is but one kind of soil that the peach tree will live in, for the ordinary length of time they will live in *congenial soil*, that has been under cultivation any number of years (say twenty or upwards,) and that is a *reddish clay soil*, which holds a goodly portion of *iron* in solution. This fall I ate finely flavored peaches from trees that were more than twenty years old. The trees had been planted and raised in the above described soil. In all new cultivated lands we know that there is going on continually a decomposition of vegetable matter say from the leaves that have fallen from time immemorial, rotten timber, and the decaying of the roots and stumps &c. Our next inquiry will be, what effects are we to expect from this decomposition? One is, we know, that about old buildings and rubbish of all kinds, the earth is always saturated with *saltpetre* or *nitre*, held in solution (as both names are applied to the same article.) The earth being measureably saturated with nitre, the tree is favored with a nitrous dew; for nitrous acid will abound where nitre is held in solution. There must, also, be what chemists call the "*Hydrogen gas*," for they say that it has an active part to perform in the decomposing of vegetable substances, together with other gases. If it is a fact (and I believe no one will deny it,) that those gases are necessary to be in abundance, or that the atmoshpere ought to be surcharged with them, for the preservation and active growth of the tree and its fruit more than for any other fruit tree, all we have to do to have our trees preserved to longevity, and have as rich, delicious fruit, as formerly, is to generate those gases which appear so essential. This may be done in the following manner: When we have trees planted in a grassy soil, we ought to denude the root of the tree (say one yard) so deep as to destroy the root of the grass; fill that vacancy with leaves, rotten logs, chips, or tanner's bark. The latter, I think, will answer, though I would prefer the chips, or rotten wood, to anything else, for they will not produce so much moisture as tan bark, and as the ground where grass grows is measurably deprived of its nitre, and is cold, the chips or rotten wood will generate nitre, warm the ground, destroy the gluten in the soil, and keep the earth from freezing, thereby preventing the trees being killed by the frosts of the hard winters. By doing this, you leave the soil for your trees in nearly the same situation to nurture them, that the soil of new clears and is in. When trees are young—recently planted, and no sward of grass around them, I am clearly of the opinion that the tan bark will answer all purposes; that by the time the tree grows to any size, the bark will be decomposed so as to furnish a sufficient quantity of nitre and gases to answer all purposes for the benefit of the trees. I would advise a renewal of the chips, wood or bark, as often as necessary, to keep the roots warm in the winter and to prevent the growth of grass, always putting it on over the preceding coat. I would also advise the disuse of the pruning knife, after the transplanting of the trees. I would prefer letting them grow as nature directs, for whenever the bark is broken, a gum exudes from it, impoverishes its juices, and the tree then begins to decay. To prevent worms and other insects from getting about the roots of trees, sprinkle sulphur around the body on the ground, and cover it with a small quantity of earth, to prevent the wind from blowing it away. This should be done in the month of April. The bodies of the trees may likewise be painted with sweet milk and sulphur, which will effectually destroy all insects that wound the bark. When caterpillars are troublesome to your fruit trees, take a pailful of live coals, hold it under that part of the tree which they are upon, skrinkle sulphur of brimstone on the coals, and the fumes will entirely destroy them.

I have dropped a few hasty remarks—perhaps enough to induce some abler pen to do the subject justice. AGRICOLA.

The Philosophy of Crosses.

Few persons who have reflected on the matter at all, will be disposed to deny, that between the animal organization of man and brutes, there exists a striking similarity. In the functions of production, nutrition, disgestion; in the materials of structure; in the gradual reaching of the highest point of animal vigor and perfection, and in a gradual decay; in the purely animal propensities and their consequences; the accomplishment of the same ends by the same means, and an identity of results; man as an animal, and the brute, scarcely differ. This fact does not in the least affect his moral and intellectual distinction and superiority; it is not these things, strictly speaking, that constitute the *Man*. This community of constitutional feeling and functions being clear; the fact may we think be advantageously used in many questions of animal sympathies, habits, and organization; by illustrating those things which are but imperfectly understood in the animal, by the corresponding habits and sympathies which belong to man as an animal, and which have been made the subjects of closer investigation, and rigid analysis.

The effect which the intermixture of different races of horses, cattle or sheep, or what in other words is called the crossing of breeds, has upon the progeny in raising or lowering the character of the animal, uniting the good qualities of both, or sinking both to a common standard, is a question of the greatest interest to the farmer; and which it is presumed may be made intelligible, and the results better understood by a consideration which such processes have upon man. Dr. Pritchard has laid down two rules as the result of extensive observation on this matter,—"First, that the organization of the offspring is always modelled according to the type of the *original structure of the parent;* and, secondly, that changes produced by adventitious or external causes in the appearance or constitution of the individual are temporary; acquired characters in general being transient, terminating with the individual, and having no effect on the progeny."

Illustrations of the first proposition may be found in the mixed races of white and Indian in Canada, in North America; the Spanish and Indian in South America; the English and Hindoo in India; as well as other less distinctly marked instances in other parts of the world. In these cases it is invariably found, that the progeny is far superior in hardihood and capability of enduring the peculiarities of climate to the imported parent, but inferior in mental capacity and endowments; while its moral and intellectual capacities are proportionably elevated above the native races of those countries. As proof, we refer to the half-breeds of the Canadas and Cherokees, many of whom appear to combine the native cunning of the Indian with the cool deliberation of the white:—to the mulattoes of St. Domingo, who now hold the rule of that fertile island in defiance of both whites and negroes;—to the mixed race in Colombia, many of whom are prominent characters in the republic, Gen. Paez, now president of Venezuela, for instance;—and to India, where the half-breeds are so decidedly superior to Europeans in physical, and to the natives in mental qualities, that they may already be considered as marked out for the future sovereigns of the east.

In applying these principle to the crossing of breeds of cattle, it will be sufficient to mention the improvements effected by Sinclair and others in Scotland, and by Bakewell and others in England. In Scotland, the native breeds of cattle were a small black buffalo looking race, worth little for labor, and still less for the dairy. Some men, called book farmers, determined to make an experiment of improving the stock by crossing the breed, and combining, if possible, the size and valuable qualities of the English cattle, with the exteme hardihood of the native black cattle; as the former, when pure blooded, withstood with difficulty the severe winters of the Highlands. The result fully justified their anticipations; some most valuable breeds of cattle, among which is the celebrated Ayrshire, were gradually produced, and have become fully acclimated; while the black cattle and the tartan have disappeared, except from some of the most remote and unfrequented vallies of that wild country. What has been done in England in improving cattle, we have had occular demonstration before us, in the beautiful full bred animals that within a year been imported from abroad; particularly those introduced by the patriotic agriculturists of Ohio.

The horse too, may be mentioned as illustrating the principle laid down in the above extract. The swift and beautiful Arabian would be unable to to withstand our severe climate and exhausting labor; yet by mixing his pure blood with our hardier races of animals, breeds are obtained, adapted to the climate; yet combining the fleetness of the one, with the bone and muscle of the other. The original qualities of the parents are generally decidedly shown in the offspring, or if partially obscured in one individual, succeeding ones show they are not lost; the constitutional type remains permanent and unimpaired.

Perhaps the pernicious effect of breeding in and in, as it is called, that is, propagating races and families without crossing, or paying proper regard to the qualities of the parents; and the obvious benefits of selecting the best breeds and improving them by crosses cannot be better shown, than by an example or two selected from well known facts respecting the human family. In Spain and Portugal, and in a less degree, some other European countries, the degeneracy and even idiocy of some of the noble and royal families, caused by constantly intermarrying with each others nephews, neices and cousins, is a subject of common remark, and obvious to the most careless observer. Viewed phrenologically, their heads show that the mental and moral powers are diminished to the lowest ebb, while their animal organization continually gains in ascendency. The late king of Spain, Ferdinand the 7th, was a striking example of this; and his projecting lips and chin, and retreating and sunken forehead, gave his head an aspect more resembling a baboon than a man; and as was to be expected from such a conformation, in him the animal powerfully predominated.

On the contrary, all travellers agree, that the finest specimens of men any where to be seen, are to be found among the higher ranks, the nobility and princes of Turkey and Persia. This is accounted for by the fact, that from time immemorial the custom has existed in those countries of purchasing the most beautiful and perfect Georgian and Circas-

sian girls,and forming connexion with them as wives. Perhaps there is no country in which can be found individuals in whom the moral and intellectual development is higher than among these beautiful captives ; and thus, by constantly crossing the blood of the nobles of those countries, who alone can be the purchasers, the constant tendency of their lives to sensuality and mental effeminancy is counteracted. The London Quarterly Review, one of the best authorities on the subject, says, that some of the most beautiful women in England, if not in the world, are to be found among the milliner girls of London ; the illegitimate and unowned offspring of the nobility, from connexion with the most beautiful and intellectual of the middling and lower classes, females who have rarely been able to resist the combined influence of rank and wealth. These facts, which are not to be disputed, seem to place the proposition that the progeny will resemble the original structure of the parents beyond a reasonable doubt.

There may be exceptions to the rules indicated by the above ascertained facts ; as a good cow may have a bad calf. or a bad cow a good one ; and now and then a respectable, intellectual man, or a beautiful woman, may spring from a stock to which in general such qualities are utter strangers. But these changes are temporary,owing to adventitious circumstances, and do not spring from any continual alteration ; consequently they usually disappear with the individual. So too in the best races of men or animals, inferior specimens may occasionally be found, yet their progeny will usually have redeeming qualities, which show the excellence of the stock from which they sprung. Their faults are purely accidental or individual ; they do not belong to the constitution of the race, and therefore end with the one on whom the faults are found.

Experience has shown that there is little danger in breeding from a horse which is not perfectly unexceptionable, if his pedigree shows in both lines an unbroken succession of good blood ; his faults do not belong to the breed, and are therefore rarely if ever propagated. But if in his pedigree you find a cross of decidedly inferior blood, beware lest you do not find the defects of the parent continued in the progeny ; a sure proof that the difficulty is constitutional, and the defect one which can no more be got rid of than the hair or hoofs. Bad blood will sooner or latter show itself; it is like the disposition to lunacy in certain families, sometimes passing two or three generations and then becoming again fully developed. We have witnessed another singular illustration of the tenacity with which constitutional defects cling to a race, in a family in which both the male and female lines there is tendency to produce individuals with six fingers and six toes; and in which scarcely a family of children can be found, one or more of which are not distinguished by this extra member.

The practical inferences we would wish those who are engaged in the laudable effort of improving horses, cattle, or sheep, by crossing breeds, or by importing, to draw from the above remarks, are first to get the best blood belonging to the breed ; and secondly, to secure animals that combine the greatest number of valuable qualities for their experiments. In this way only can they expect the full success which should crown their labors. If our native breeds are to be made in part the basis of operations, for instance, a native cow and an imported bull, it is clearly increasing the chance of a valuable progeny to select a cow combining in a good degree, aptitude to fatten, strong constitution and capability of enduring our severe winters, a kind disposition, and withal a good milker. Such cows can be found among us, and if they were more common, or a certainty they would produce their like, the necessity of imported stock would be much less urgent than it now is. Now, unless there is a trace of foreign blood in the animals there is no certainty, scarcely a probability, that the progeny will resemble the parent ; the excellencies are merely accidental, they do not belong to the original stock, they are not in the type, and therefore will be evanescent.

A short sketch of the various crosses which have produced the present improved breeds of cattle in England, may not be out of place here. In Great Britian, the *Short Horns*, one of the valuable kinds, and which is now principally sought after in this country, comprise the descendants of the Dutch breed, the parents of the original Durhams;—the Teeswaters a cross between the Durham and the Alderneys ;—the Holderness improved by a cross with the Teeswaters ; and the Yorkshires, a cross between the improved Holderness, and the improved Short Horns. The "*improved short horns*," the best breed of cattle existing, considered in every respect, is a cross of the best Teeswater or Durham, with the Galloway from the north of England, and no animal can be considered as of undisputed blood whose pedigree cannot be traced up to the celebrated Teeswater bull Hubback, owned by Mr. Colling, the original improver of the breed. Next to the Improved Short Horns, the Devonshire breed, are ranked in value. They are supposed to belong to the original stock of cattle in Great Britain, uncontaminated by foreign intermixture. Mr. Bakewell, by breeding from the best animals that could be selected brought the Devons to such a state of perfection, that all attempts at crossing by other breeds have only deteriorated instead of improving the breed ; and though for some purposes partially superseded by the Short Horned Durhams, they are still deservedly great favorites. In beauty and uniformity of colour, a dark rich mahogany, the Devon has the advantage over the Short Horn, while the latter clearly asserts the supremacy in form. The celebrated Ayrshire breed sprung from a cross of the native Holderness and Highland with the Durham.

It is perhaps, unnecessary to illustrate this subject farther. What has been done abroad can be done here ; and our agriculturists should remember that they stand on the high vantage ground gained by the experiments and the labors of centuries. The ground already traveled by the pioneers in the improvements of breeds is not again to be gone over; the point of success reached by others is our starting point ; and much shall we be to blame, if with all the additional light of science, and the experience of years, in our possession, we suffer improvement to retrograde, to go backward instead of forward.

Onondaga County, 1837. W. GAYLORD.

From Low's Elements of Practical Agriculture.

Cheese Making.

Cheese consists of the caseous matter of milk united to a portion of the oily or creamy part. This oily portion adds to the flavor and richness of the cheese, and hence, when good cheese is wanted,the cream should not be separated. Cheese, however, can be made from milk from which the cream has been removed ; and it is then termed skimmed-milk cheese. It may even be made from butter-milk, in which the cheesey part entirely remains. But then, the creamy part being more withdrawn than in the case of skimmed-milk, the cheese wants still more the properties and flavor which are valued in this species of food.

For the making of cheese, the utensils usually required are :—a large tub, in which the milk is coagulated, and the curd broken ; the cheese-knife, someimes of wood and sometimes of iron, with one or tmore blades, for cutting the curd and allowing the whey to separate ; wooden dishes, for removing the whey ; generally another wooden vessel perforated with holes, for further expressing the whey ; small circular vats, in which the cheese is placed, that it may be compressed ; and finally, the cheese-press.

Cheese-presses are of different forms. They are generally made to act upon the curd by the continued pressure of a weight. The most simple, perhaps, is a long beam, made to act as a lever,the cheese to be compressed being placed in its vat, between the weight and the fulcrum.

But more complex forms of the cheese-press, and in some cases, more convenient, may be adopted.

The coagulation of the milk is produced by various substances, but the most approved is rennet, which is prepared from the stomach of a young calf. This substance may be obtained as follows :

The stomach of a new killed calf, with its contents consisting chiefly of coagulated milk, is to be taken. The matter of the stomach is to be preserved,separating merely any indigested substances, as straw and the like,that may be mixed with it. It will add to the quantity of rennet obtained to feed the animal largely with milk, some hours before it is killed. A few handfuls of salt are to be put into the stomach and all around it. It is then to be rolled up, and hung up near a fire to dry ; and its quality will improve by hanging it up a year or more before it is used. It is the gastric juice in this rennet which produces the coagulation of the milk.

When the rennet is prepared for use, it is cut into small pieces and put into a jar, with a handful or two of salt. Water, which had been previously boiled and cooled again, is then poured upon it, and allowed to remain for two or three days. It is then drawn off, and a second infusion made, but with a smaller quantity of water. This also remains a few days, and being withdrawn, the two liquors are mixed together, strained through a cloth, and put into bottles, to be used when required.

The usual manner of making cheese is the following :—The milk is put into a large tub, and this as soon after being obtained from the cows as possible. If there is a sufficient number of cows upon the farm to produce one cheese at a milking, the process is performed immediately on the milk being brought from the cows. The milk,after being strained through a seive, is put into a vat, and while yet warm,a table spoonful or two of the rennet is mixed with it, after which the coagulation soon takes place.

But if there be not a sufficient number of cows to make a cheese each time they are milked, then the milk, as it is brought from the cows, is put into the milk-vessels until as much is collected as will form a cheese. When the cheese is ready to be made, the cream is skimmed off, and as much of the milk is heated separately as when added to the mass again, will raise it to about 90°. The cream which has been separated is then either mixed with this heated milk, and so liquefied and dissolved in it; or it is not added to the general mass until the heated milk has been added.

The curd being fully formed, it is cut in various directions with the cheese-knife, so as to allow the whey to exude ; and the whey is then lifted out in flat dishes, the curd at the same time undergoing a gentle pressure. The curd is then cut into small pieces by the cheese-knife, and put into a seive or vat with holes, and then repeatedly cut, pressed by the hand, and broken, until it ceases to give off any serous matter. It is last of all cut very small by the cheese-knife, and a quantity of salt, in the proportion of about half an ounce to a pound of cheese, being mixed with it, it is wrapped in a piece of *cloth*, and then put into a small wooden vessel with circular holes at the sides and bottom, and placed in the cheese-press.

The time during which the cheese remains in the press is dependent upon the nature of the cheese and the degree of previous manipulation which it had undergone. In some of the finer and richer cheeses, the pressure is very slight, and in some cases the cheese-press is altogether dispensed with.

But in ordinary cases, the cheese being wrapped in a cloth, and put into its vat* with a board above it to fit the vat,† remains in the press from one to two hours. It is then taken out, broken again by the hand, wrapped in fresh cloth, and replaced in the cheese-vat ; and sometimes it is not broken, but merely reversed. It may then be taken out every five or six hours, and the cloth changed. After being pressed in this manner for two or three days, the operation will be complete. The cheese may then be kept in a warm place for some time till dry, and ultimately placed in the store room for preservation.

But great variations take place in the manner of performing the operation of the cheese manufacture; and certain districts are distinguished by their peculiarities of practice. In England, more manipulation is generally employed than is thought necessary under the system of management adopted in the dairy-districts of Scotland.

The richness and flavor of cheese very much depend upon the quantity of cream which the milk contains. In the districts of England most celebrated for rich cheese, the cream of one milking is skimmed off and mixed with the entire milk of the subsequent milking. In this way the milk which produces cheese has its own cream and that also of a previous milking.

It is a frequent practice to color the milk, so as to give a red tinge to the cheese. This is now generally done by a preparation of the red pulp of the seeds of the arnotta tree. This adds nothing to the goodness of the cheese, but the mixture is harmless.

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*Termed cheese-hoop. † Termed follower.

The residuum, after the separation of the curd, it has been said, is whey. This substance is chiefly employed to feed hogs, and is exceedingly well suited to that purpose.

These are the principal details which it is thought necessary to give regarding the preparation of these salutary and nutritive substances. By means of the dairy, a larger quantity of nutriment can be obtained from the consumption of an equal quantity of herbage than by any other species of feeding. The dairy forms an important branch of public industry, and contributes in a material degree to the support of the inhabitants of this and other countries of Europe.

In the practice of the farm, where the main object is rearing animals for feeding, the kinds of animals will be selected for breeding which are the best suited for that purpose; and the production of milk will be regarded as secondary and subordinate. But when the principal object is the production of milk, then animals will be selected the best adapted for yielding rich nad plentiful milk.

The form of animals that are best fitted to arrive at early maturity and secrete fat, differs in some respects from that which indicates a disposition to secrete and yield milk. A dairy-cow, like a feeding animal, should have a skin soft and mellow to the touch,—should have the back straight, the loins broad, the extremities small and delicate; but she should not, as in the case of the feeding animal, have the chest broad and prominent before. She should rather have the fore-quarters light, and the hind quarters relatively broad, capacious, and deep; and she should have a large udder. There should be no breeding *in-and-in*, as in the case of a feeding stock. The object in rearing cows for the dairy is not to produce animals that will arrive at premature age, but such as are hardy and of good constitution. By long attention to the characters that indicate a disposition to yield milk, the breed of Arshire has become greatly more esteemed for the dairy than other animals much superior to them in size and feeding qualities.

From the Germantown Telegraph.

Indian Corn.

Mr. Freas—I am induced by your article in this day's paper, to say a few words on this subject. As far as my experience has gone, I am decidedly of opinion that it is much better to plant corn in rows, and in single plants, than in hills of three or four plants in a hill. I planted near an acre last year, in double rows 6 feet apart, that is, I put two rows together at a foot distance, and the plants at a foot apart in the row. My chickens took at least one-third of it before I discovered it, and I had to replant about three weeks afterwards, which was a great drawback in such a cold season as the last was. The land is but middling quality, and was but lightly manured by ploughing it down. I had no sod to plough in, as it was part in corn the year before. I horse hoed once & ploughed and earthed it up once only; and then discovered my error in putting two rows together; having had to throw the earth into the space between the rows with the spade. However, it grew finely; and an old farmer, who saw it many times, said it was the best he had seen in Germantown township. Being of the gourd seed kind, it had not heat enough to ripen it well; but this was nothing against the principle of planting in rows, which I believe is the best.

If I have time I will send you further information on this subject for your next paper; but at present shall confine myself to giving our farming friends a hint, how to preserve their crops of corn from the destruction of the crows and blackbirds; and I should suppose chickens also. A friend told me of it last year, and he has tried it, and found it to answer. It is to dissolve a quantity of copperas in water, and to soak the corn in it before planting. It will turn the corn black, but will not injure its vegetative powers. I do not know what quantity of copperas he put to a certain quantity of water, nor how long he suffered it to remain in soak; but as he sees your paper regularly, I will conclude by requesting him, thus publicly, to give us all the information he is possessed of on this subject, and have no doubt he will take pleasure in doing so.

I am yours, respectfully, A. G. F.

Near Germantown, 19th April, 1837.

P. S. Please to allow me to express my thanks to your correspondent "Penn," for his communication about Apple Trees. I have planted a few in the mode he recommended; and have been informed by an old nurseryman, that soot will protect the tree form the attacks of these grubs.

A Boston Medical Journal says that a singular property has lately been ascribed to coffee, when drank habitually from early childhood to the age of puberty,—that of preventing that development of the bones, which would take place were this article never introduced into the stomach.

The great Gothic window of the N. Y. University will afford a fine specimen of the art (long lost) of staining glass.

Greenhouse and Parlor Plants.

THE splendid collection of Ornamental Plants at the Rochester Greenhouse on Sophia street, are now in a fine healthy condition and ready for sale.

The assortment is very large and embraces many of the most rare and beautiful Flowering Plants, all of which are of easy cultivation and will thrive in a common sitting room with ordinary attention.

Depending on extensive sales and desiring that all who are fond of plants, should enjoy that innocent gratification, we have determined to sell at very reduced prices.

Many of the plants are now in bloom, and the public are respectfully invited to call and see them. The House willbe open every afternoon. REYNOLDS & BATEHAM.

May 27.

2,000,000 Silk Worm Eggs,

JUST received at the Rochester Seed Store. Price 12a cents per 1000, or 10,000 for $1.

may13 fr2w. REYNOLDS & BATEHAM.

Still More Seeds!!

WE have just received large additional supplies of genuine Orange Carrot, Mangel Wurtzel, Ruta Baga, and English Turnep seeds, of the best quality.

Also, a good supply of Cucumber, Melon, Squash, and Pumpkin seeds.

The unprecedented demand for seeds this season, had exhausted our stock of some kinds. We can now supply orders at very low prices.

REYNOLDS & BATEAAM,
Rochester Seed Store. Arcade Buildings.

May 20.

Valuable Works on Gardening.

The Young Gardener's Assistant—containing practical directions for the cultivation of Vegetables, Fruits and Flowers. By T. Bridgeman, seedman and florist, New York—seventh edition, improved. Price $1.

The Florist's Guide—containing practical instructions for the cultivation of Flowers. By the same author. Price 37 1-2 cents.

The Kitchen Gardener's Instructer—containing ample directions for the cultivation of culinary vegetables, herbs, &c. By the same author. Price 37 1-2 cents.

For sale by REYNOLDS & BATEHAM,
May 20. Rochester Seed Store.

3.125 LBS. Ruta Baga, White Flat, Norfolk, Long Tankard, Yellow Bullock, and other Turneps, Mangel Wurtzel, French Sugar Beet, and Orange Carrot, with a great variety of *English Imported Garden Seeds*—"cheap as dirt." at the Rochester Seed Store, *Arcade Buildings*. apr29 REYNOLDS & BATEHAM.

2.000 LBS. Ruta Baga, English Turneps, and Mangel Wurtzel seed, just received from England, and for sale at reduced prices, at the English Seed Store, 62 Buffalo st. KEDIE & HOUGHTON.

april 29

Flower Seeds.

A SPLENDID assortment of annual, biennial, and perrennial Flower Seeds of the growth of 1836, for rate at the Rochester Seed Store, in boxes of 20 varieties for $1, 50 varieties for $2, 100 varieties for $4, or singly at 6 cents per paper. Catalogues may be had at the Store.

april 29 REYNOLDS & BATEHAM.

Attention Farmers and Gardeners,

TO the prices of seeds now selling at the new English Store, opposite the Court-house.

Early York and Drumhead Cabbage,	1s. per ounce.
New Early Nonpareil,	3s. "
All others,	1s. 6d. "
Early Horn Carrot and the Large Field Carrot,	5s. per pound.
Field Beet or Mangel Wurtzel,	3s. 6d. "
Radishes, of sorts, from	4s to 5s. "
Ruta Baga,	5s. "
All other Turnip Seeds from	4s. to 5s. "

The subscribers offer their stock of the above Seeds at the prices stated, with all others of their importation, equally low, they being determined to sell at such prices as shall induce growers to cultivate the Root Crops extensively, the high price of the seeds of which have in this market been hitherto considered an objection, which complaint can no longer exist, and they solicit the patronage of the public. Proof specimens may now be seen growing at their Store.

KEDIE & HOUGHTON,
apr22-tf 62 Buffalo-st. opposite the Court-House.

Mulberry and Locust Seed.

A NEW supply of White Italian Mulbery and Yellow Locust Seed, just received by

REYNOLDS & BATEHAM,
my6 *Rochester Seed Store, Arcade Buildings.*

Rochester Seed Store—*Extra.*

OWING to their excellent facilities for procuring seed of American growth, as well as importing such as are found to mature better in other climates, the proprietors of this establishment are enabled to offer their present stock at very reduced prices, particularly *English* seeds.

Their present assortment of the growth of 1836 is very extensive, and was raised in the most careful manner by respectable seed growers in this country, or imported from the best foreign sources.

Encouraged by the liberal and increasing patronage they have hitherto received, they are determined to sell at as low prices as seeds *of equally good quality* can be purchased at any reputable seed store in the United States.

REYNOLDS & BATEHAM.
apr22 Arcade Buildings, Rochester.

Early Red Eye Beans.

A LARGE supply of these superior Beans just received at the Rochester Seed Store.

These beans are very early and productive, and from the certainty and abundance of the crop, and the high price they bring in market, are doubtless the most profitable kind for planting.

A farmer in this vicinity realized 180 dollars for the product of 2 acres the last season.

REYNOLDS & BATEHAM,
apr 22 36 Arcade Buildings.

Agents for the Rochester Seed Store.

OUR distant friends and the public will find a large assortment of Garden, Field and Flower Seeds, which may be relied on as being fresh and genuine, put up and labeled at the Rochester Seed Store, for sale at the following places;

W. & G. Bryant, Buffalo
G. W. Merchant, Lockport
Williams & Dorrance, Batavia
Gates, Bradley & Co. Le Roy
J. F. Wyman, Geneseo
J. B. Dungan, Canandaigua
Bogarts & Wynkoop, Geneva
Holden & Vincent, Oswego

The above gentlemen are authorised to receive orders and payments for us, for seeds, trees, plants, or any other articles in our line. REYNOLDS & BATEHAM.

march 18

Fruit Trees For Sale.

THE subscriber respectfully informs his friends and the public that he has for sale at his Nursery in Rochester, Monroe county, state of New York, a large quantity of Fruit Trees, grafted and innoculated with the most approved kinds, now fit for transplanting, which he will sell on the most reasonable terms. SAMUEL MOULSON.

apr 15-tf

A Splendid Farm for Sale.

THAT well known farm formerly owned and occupied by James Graham deceased, situate on the shunpike road between Erie and Waterford, midway distant from either place. The farm contains 212 acres neat measure, 175 of which is cleared and under a high state of cultivation, on which is erected a large and convenient dwelling house, kitchen, wood-house, &c. Two large frame Barns, one of which is 90 feet long, and the other 45, a shed for the shelter of cattle, 80 feet long, togther with out-buildings suited for convenience and comfort.

There are also on the premises two large fruit Orchards, with about 250 fruit trees in each, scarce one failing to yield an abundant supply every year of excellent quality of fruit.

This farm is well watered and well adapted to grazing, with a sufficient quantity of arable land for the producing of grain.

More particular information respecting the premises, as well as the terms of sale, can be had by inquiring of Carson Graham, at the office of Riddell & Graham, in Erie, or of William Graham in Beaverdam, one mile from the premises.

WM. GRAHAM.
Erie, Pa. March 1, 1837. apr 3 9t1

WILLIAM ATKINSON, *LAND AGENT*, 17 Exchange-street, Rochester. ☞ Farms for sale.

march 4 6m

Monroe Horticultural Garden & Nurseries, Greece, Monroe Co., N. Y.

THIS establishment now comprises over 20 acres, covered compactly with Trees and Plants in the different stages of their growth.

The subscriber offers to the public a choice selection of Fruit Trees, of French, German, English and American varieties, consisting of Apples, Pears, Plums, Peaches, Cherries, Apricots, Nectarines, Quinces, Currants, Gooseberries, Raspberries, Grape Vines, Strawberries, Ornamental Trees, Shrubs, Plants, Hardy Roses, Vines, Creepers, Herbaceous Perennial Plants, Bulbous Roots, splendid Pæonies, Double Dahlias, &c. &c.

Also, a large collection of Green House Plants, of choice and select varieties, in good condition.

Orders respectfully solicited. Trees and Plants, when ordered, are carefully selected and faithfully packed, and if desired delivered on the canal one mile from the Nursery, or at Rochester.

Orders for Mr. Rowe's Nursery received by the publisher of this paper.

Catalogues will be sent to every applicant gratis, or may be had by calling at the office of the Genesee Farmer.

April 1, 1837. ASA ROWE.

From the North American Review.

Logging in Maine.

When a lumberer has concluded to log on a particular tract, the first step is to go with part of his hands, and select suitable situations for building his camps. In making this selection, his object is to be as near as possible to the best clump of trees he intends to haul, and to the streams into which he intends to haul it. He then proceeds to build his camps and to cut out his principal roads. The camps are built of logs, about three feet high on one side and eight or nine on the other, with a roof slanting one way. Against the tallest side of the camp is built the chimney; the back being formed by the wall of the camp and the sides by green logs piled up for jambs about eight feet apart. Yet the great fires that are kept up, make but little impression in the course of winter upon the back side of the chimney. A case, however, occurred within a year or two, where a camp took fire in the night and was consumed, and the lumberers within it were burnt to death.

Parallel to the lower side of the building, and about six feet from it, a stick of timber runs on the ground across the camp. The space between this and the lower wall is appropriated to the bedding; the stick of timber serving to confine it in its place. The bedding consists of a layer of hemlock boughs spread upon the ground, and covered with such old quilts and blankets as the tenants can bring away from their homes. They camp down together, with their heads to the lower wall and their feet toward the fire. Before going to bed they replenish their fire: some two or more of them being employed in putting on such logs as with their hand-spikes they can manage to pile in the chimney. As the walls of the building are not very tight the air plays round the head of the sleeper, making a difference of temperature between the head and the feet not altogether agreeable to one unused to sleep in camps. A rough bench and table complete the furniture of the establishment. A camp very similar, though not so large in its demensions, is built near for the oxen. On the top of this the hay is piled up, giving it some warmth while it is convenient for feeding.

Having built their camps, the main roads are to be cut out. These run from their camps to their landing places or some streams of sufficient size to float down the logs on the spring freshet. They are made by cutting and clearing away the underbrush, and such trees and old logs as may be in the way, to a sufficient width for the team of oxen, with the bobsled and timber on it.

The teams proceed to the woods when the first snows come, with the hands who are not already there, and the supplies consist principally of pork and flour for the men and Indian meal for the oxen. Some beans, tea and molasses, are added. Formerly hogsheads of rum were considered indispensable, and I have before me a bill of supplies for a logging concern of three teams in 1827, in which we find one hundred and ten gallons of rum charged. But of late very few respectable lumberers take any spirits with them. And the logging business is consequently carried on with much more method, economy, and profit.

Some one of the hands, who has not so much efficiency in getting timber as skill in kneading bread and frying pork, is appointed to the office of cook. Now and then, perhaps, they catch a deer, and live on venison.

The men are employed through the day in cutting the timber and driving the teams. In the evening some take care of the oxen, some cut wood for the fire; and then they amuse themselves with stories and singing, or other ways, until they feel inclined to turn in upon the universal bed. On Sundays the employer claims no control at all over their time, beyond the taking care of the cattle, the fire and the cooking. On this day they do their washing and mending—some employ themselves besides in seeking timber, and some in hunting patridges; while some remain in the camp and read the Bible.

They remain in the woods from the commencement of sledding, some time in December, until some time in the month of March—in the course of which month their labors are usually brought to a close, by the snow getting too shallow.

When the spring is open, and there is a sufficient freshet to float the timber, another gang, called "river drivers," take charge of it. It is their business to start it from the banks, and follow it down the river, clearing off whatever lodges against rocks, pursuing and bringing back the sticks that run wild among the bushes and trees that cover the low lands adjoining the river, and breaking up jams that form in narrow or shallow places.

Some weeks, more or less, according to the distance, spent in this way bring the timber to the neighborhood of the saw mills. A short distance above Oldtown, on the Penobscot, there is a boom establtablished, extending across the river for the purpose of stopping all the logs that come down. It is made by a floating chain of logs connected by iron links, and supported at suitable distances by solid piers built in the river; without this it would be impossible to stop a large part of the logs, and they would be carried by the freshet out to sea. The boom is owned by an individual, who derives a large profit from the boomage, which is thirty-five cents per thousand on all logs coming into it. The boom cost the present owner about $40,000. It is said the nett income from it last year was fifteen thousand dollars.

The ownership of the timber is ascertained by the marks which have been chopped into each log before it left the woods—each owner having a mark of his own. When the boom is full, only the logs lowest down can be got at, and the proprietors of other logs must wait weeks, some times months, before they can get them out.

While at the boom, and at other places on the river, they are liable to great loss from plunderers. The owners or drivers of logs will frequently smuggle all that come in their way, without regard to marks.

The kinds of timber brought down are pine, spruce, hemlock, ash, birch, maple, cedar and hackmatack. Far the greater part of it is pine.

The Emperor at the Plough.

On the 15th day of the first moon, in every year, which generally corresponds to the first of March, the Emperror (of China) in person performs the ceremony of opening the Grounds. This Prince, in great pomp, proceeds to the field appointed for the ceremony: the princes of the imperial family, the presidents of the five great tribunals, and an infinite number of mandarins, accompanying him.—Two sides of the field are occupied by the Emperor's officers and guards; the third is allotted for all the laborers of the province, who repair thither to behold their art honored and practiced by the head of their empire; the fourth is reserved for the mandarins.

The Emperor enters the field alone, prostrates himself, and nine times strikes his head against the ground, in adoration of Tien, the god of heaven; he pronounces with a loud voice, a prayer appointed by the tribunal of the rites, invoking the blessing of the Almighty Sovereign on his labor, and on the labor of his people, who form his family; he then, in quality of sovereign pontiff of the Empire, sacrifices a bullock, which he offers up to heaven, as the source of every blessing:—whilst they cut the victim in pieces, and place them on the altar they bring the Emperor a plough, in which are yoked a pair of bullocks magnificently adorned. The Emperor then, laying aside his royal robes, takes hold of the handle of the plough, and turns up several furrows the whole length of the field; then, with a complaisant air, having delivered the plough to the mandarins, they successively follow his example, emulating one another in performing this labor with the greatest dexterity. The ceremony concludes with the distribution of money, and pieces of stuff among the laborers there present; the most active of whom finish the remaining labor, in presence of the Emperor, with great agility and address.

Some time after, when they have sufficiently labored and manured their grounds, the Emperor repairs again, in procession, and begins the sowing of the field, always accompanied with ceremony, and attended by the laborers of the province.

The same ceremonies are performed on the same days, in all the provinces of the Empire, by the viceroys, assisted by all the magistrates of their departments, in presence of a great number of the laborers of their respective provinces. I have seen this opening of the grounds at Canton, (says the writer of this article) and I never remember to have beheld any of the ceremonies invented by men, with half the pleasure and satisfaction with which I observed this.—*Pictou (N. S.) Bee.*

From the Albany Jouraal.

☞ The Agriculturists in the Western part of this State are making laudable exertions to stock their Farms with an improved breed of Cattle.—This they are enabled to do, now, without sending to England, some of the enterprising Farmers in this vicinity, having, some years ago, imported extensively from the best herds in Europe.

Within a few days, some of these fine Cattle, purchased by G. V. Sackett, Esq. of Seneca Falls, and the Hon. Samuel Clark, Esq. of Waterloo, were sent west by the canal. Their beauty, in passing through the streets, excited general admiration.

The stock consisted of a full blooded "improved Durham short horned" bull, purchased of Matthew Bullock, Esq. of Bethlehem. He was of a light roan, five years old, of beautiful form and symmetry, combining all the good qualities calculated to perpetuate the breed of this noble variety of cattle. He was short in the leg—deep and broad in the chest—straight in the back—hips low—broad on the loin—his head and neck were the finest we ever saw on a bull; was perfectly quiet and docile—in fine condition—and weighed on the scale 2000 lbs.

The remainder consisted of a heifer, not quite three years old, with a beautiful calf by her side, and a yearling heifer, and a pair of Bakewell sheep, purchased of C. N. Bement. The heifer though low in flesh, showed a good frame and all the good points for a deep milker, which was evident from the appearance of the splendid calf running by her side. The yearling was in better condition and commanded the admiration of all who saw her.—Two were of a light roan, the other dark red white.

A Superior Cow.

We visited, a few days since, the farm of Mr. Beltzhoover in company with an esteemed friend from Marietta, Pa., to view the fine Durhams and other stock, which reflect so much credit upon the proprietor of that establishment, and his skilful assistants. While there our curiosity was excited by the immense volume, which the udder of an Irish poll cow presented, and to gratify it requested that we should be present when she was milked, *it being* near the hour for the performance of that service. She was milked at 6 P. M. having been previously milked twice before that day, *to wit*, at 5 and 10 o'clock A. M. She gave 14 quarts, and the *cow-herd* assured us, that she had given more at the first milking that morning. She is a noble framed animal, large and well formed, with a back straight as a rule, ample hips, square buttocks—in a word, she possesses all the marks of what she really is, a first rate milch cow, with nothing left for improvement, though directed by all the genius of a Collings, a Berry, a Whittaker, or a Denton.—*Farmer and Gardener.*

KEDIE & HOUGHTON, Importers of English Field and Garden Seeds, beg to apprize the public that they have now for sale the largest importation of the choicest and best varieties of every kind of Garden and Field Seeds ever offered to the public in Western New-York, all of which have been selected from the most eminent growers in the Old Country, (and of the growth of 1836,) which, together with a large assortment of Seeds of American growth, they confidently submit to the public as being unequalled by any ever offered in any part of the United States, and by adhering to a strict determination of offering no other seeds but the vitality of which shall have been tested, they solicit a share of the public patronage.

K. & H. deem it necessary to state, that Mr. Kedie's intimate connection in England with most of the practical and scientific agriculturists, horticulturists and botanists, with whom he has passed all the former part of his life, gives him an advantage in his selection of seeds for the public good, not surpassed by any other establishment in the Union.

No. 6 Buffalo-street, west corner store of the Eagle Block.
Catalogues to be had at the store.
The highest price paid in cash for Grass Seed.
Rochester, Feb. 7, 1837. feb 25

Morus Multicaulis.

JOSEPH DAVENPORT offers for sale 50,000 plants of the true Chinese Mulberry, or Morus multicaulis. Trees will be carefully packed and forwarded as early as desired. Orders must be sent to Colerain, Mass. till the 15th of March; after which time to Hartford, Ct. All inquiries will be attended to at his plantation, 5 miles south-west of the city. Easl orders only will be supplied, as arrangements will be made use all not called for soon.

Colerain, Jan. 23, 1837.